

Docket No. 6700-1  
Application Serial No. 09/849,854

provided with a sculpted concave curvature when viewed from within the annular chamber 18. These opposing curvatures result in the sidewalls 16 having a thickness which varies radially inwardly or outwardly. The thickness of the sidewall may vary by more than 10%. Conventional tires typically have convex external sidewall surfaces and concave internal sidewall surfaces with a generally constant wall thickness, and are inflated to support the vehicle with internal pressure.

Page 10, paragraph [0020], replace with the following paragraph:

The sidewalls 16 are notably distinct from known tire sidewalls because the external face 24 has a concave curvature and the internal sidewall face 20 is concave when viewed from within the annular chamber 118. These opposing curvatures result in the sidewalls 16 having a thickness which varies as one moves radially inwardly or outwardly. The thickness of the sidewall may vary by more than 10%. Conventional tires typically have convex external sidewall surfaces and concave internal sidewall surfaces with a generally constant wall thickness.

IN THE CLAIMS:

Add new claims 22 through 24.

22. (New) A tire for mounting on a wheel rim, comprising:

an integral homogeneous toroidal body having a pair of spaced-apart radially extending sidewalls and a cross member, each said sidewall having a first and a second end and an internal face and an external face, with the second end of each of the sidewalls integrally merging into the cross member;

a set of rim-engaging surfaces at the first end of each of the sidewalls;

at least one road-engaging surface on an external surface of the cross member; and

an annular chamber defined by the internal faces of the sidewalls and an internal top wall on the cross member opposite the at least one road-engaging surface;